DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-018363 Address: 333 Burma Road **Date Inspected:** 23-Nov-2010

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: Xu Le Feng, Geng Wei **CWI Present:** Yes No **Inspected CWI report:** Yes **Rod Oven in Use:** Yes No No N/A N/A Yes N/A **Electrode to specification:** No Weld Procedures Followed: Yes No N/A Yes N/A **Qualified Welders:** No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:**

34-0006 **Bridge No: Component: OBG/TOWER**

Summary of Items Observed:

On this day CALTRANS OSM Quality Assurance (QA) Inspector Umesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

BAY 10, OBG BIKE PATH (NWIT # 7457)

This QA inspector performed Ultrasonic Testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA inspector generated UT report for this date. The members are identified as OBG Components. The weld designations reviewed are as follows.

BK004A5-027-112, 115, 118, 121, 122, 125, 128, 131

This Quality Assurance (QA) Inspector observed the following work in progress:

Bay 10

OBG BIKE PATH

FCAW welding of weld joints 013 & 014 located on BK004A8-033.

Welder is identified as 040533. ZPMC QC is identified as Mr. Yu Zhi Lai.

The welding variables recorded by QC appeared to comply with WPS-B-T-2132.

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FCAW welding of weld joints 013 & 014 located on BK004A6-033.

Welder is identified as 053869. ZPMC QC is identified as Mr. Yu Zhi Lai.

The welding variables recorded by QC appeared to comply with WPS-B-T-2133.

FCAW welding of weld joints 022~024 & 027 located on BK4ASD1-025.

Welder is identified as 052075. ZPMC QC is identified as Mr. Yu Zhi Lai.

The welding variables recorded by QC appeared to comply with WPS-B-T-2231-Tc-U4c-F.

SMAW welding of weld joints 008 & 010 located on BK004A6-030.

Welder is identified as 052493. ZPMC QC is identified as Mr. Yu Zhi Lai.

The welding variables recorded by QC appeared to comply with WPS-B-P-2114.

SMAW welding of weld joints 037 & 039 located on BK004A6-030.

Welder is identified as 056200. ZPMC QC is identified as Mr. Yu Zhi Lai.

The welding variables recorded by QC appeared to comply with WPS-B-P-2113.

SMAW welding of weld joint 010 located on BK004A3-031.

Welder is identified as 500363. ZPMC QC is identified as Mr. Yu Zhi Lai.

The welding variables recorded by QC appeared to comply with WPS-345-SMAW-1G(1F)-REPAIR.

BAY 11

TOWER LIFT 6

SAW welding of weld joint 002 located on SSD1-DPSA6-5.

Welder is identified as 056975. ZPMC QC is identified as Mr. Li Bin.

The welding variables recorded by QC appeared to comply with WPS-B-T-2221-B-U3c-S-1.

BAY 14

During Caltrans QA in process observations of the fabrication of OBG lift 13, segment 13AE; this QA discovered the following issue(s):

ZPMC welding personnel did not appear to be following the NEW WELD PROCEDURE (Rager / McQuaid) The following requirements were not followed:

ISSUE 4E: Lack of preheat

The weld is identified as SEG3007U-237

The welding process used was SMAW

The weld is a CJP joining LD 3026 to second stiffener from top at PP 119+1500.

The weld is not SPCM

Component is located in bay 14.

ISSUE 5B: NO PWHT AFTER COMPLETION OF REPAIR WELDING

The weld is identified as SEG3007K-035.

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The welding process used was FCAW.

The weld is a CJP joining LD 3025 to FB 3123 at PP 119+1500.

The thickness of the part observed to be 25mm X 20mm.

The weld is not SPCM.

Component is located in bay 14.

Attached photographs provide additional information. This issue has an incident report.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.





Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang: 15000422372/ Thomas Ho - 150002048250, who represents the Office of Structural Materials for your project.

Inspected By:	Gaikwad,Umesh	Quality Assurance Inspector
Reviewed By:	Clifford,William	QA Reviewer